

Prometheus Bound

Pre-Fire Season 2008



Moon Canyon Fire burning near the town of Bisbee in March 2008

Pre-Fire Season 2008

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Scrapbook



ARIZONA STATE
FORESTRY DIVISION

Arizona State Division of Forestry Updated Website

The Arizona State Forestry Division has an updated website that I encourage you to visit. The new URL is <http://www.azsf.az.gov/>.

The updated site is loaded with important information related to the activities of the Arizona State Forestry Division:

Fire Management Activities:

Smokey Bear and Billy Brushwacker Programs

Fire Training Opportunities

Community Wildfire Protection Plans and Information

GSA Program and link to the 2008 GSA Fire Equipment Catalog

Red Card Committee Information

Fire Information

Firewise Communities

State Forestry/DOC Fuels and Fire Crews Program

Fire Business Management Policies

Cooperative Fire Rate Agreements

Emergency Rate Rental Agreements

Plus much, much more!

Forest Management Activities:

Forest Stewardship Program

Forest Land Enhancement Program

Forest Legacy Program

Statewide Strategy for Restoring Arizona's Forests

Urban and Community Forest Program

Forest Health Conditions and Surveys

Grant and Federal Excess Property Information:

State Fire Assistance Grant (SFA)

Volunteer Fire Assistance Grant (VFA)

Rural Fire Assistance Grant (RFA)

Other Programs and Information:

Arizona Fire Map (AZFiremap)

Links of interest to Foresters and Wildland
Firefighters



The Arizona State Forestry Division's New Logo

On July 1st, 2008, Arizona State Forestry will no longer be directly associated with the Arizona State Land Department. Essentially, Arizona State Forestry will be a "stand-alone" State Agency. One of the changes will be a new logo. An image of the new logo appears to the right. The year on the logo, 1966, is when State Forestry first started in Arizona. The conifer tree and saguaro cactus represent the diversity of vegetative types found in Arizona.



Tucson District Fuels and Fire Crews ***Current Project Work and Fire Response***

Fort Grant Fuels and Fire Crew- Justin Hall, Crew Coordinator

Currently, the crew is working for the City of Safford. The crew is clear – cutting the vegetation on the dams associated with the city's blue ponds. In addition, the crew is brushing out fence lines and the Ash Creek pipeline for Cluff Ranch. The Fort Grant crew has completed its annual wildland fire training and has responded to a number of fires already.

Douglas Fuels and Fire Crew- Jack Upchurch, Crew Coordinator

Currently, the crew is working on fuels reduction projects for the BLM in Cochise County. In the near future, the crew will probably be engaged with fuels reduction work in Bisbee. The Douglas crew has completed its annual wildland fire training and has responded to several fires already.

Echo Fuels and Fire Crew

Currently, the crew is working in Oracle, treating fuels on private property. Because of the tremendous amount of fuels reduction work that needs to take place in and around Oracle, the Echo Fuels and Fire Crew will be working there for the foreseeable future. The Echo Crew has completed its annual wildland fire training and has responded to several fires already.

Catalina Fuels and Fire Crew- Ramon Reyna, Crew Coordinator

Currently, the crew is working on the Willow Canyon III project in the Santa Catalina Mountains. The nature of the project is thinning, eliminating ladder fuels, and piling. The Catalina Crew has completed its annual wildland fire training and has responded to several fires already.

Pre-Fire Season Fires!

Moon Canyon Fire

The Moon Canyon Fire started on March 13th, 2008 at 1030 hours. An individual burning vegetative debris doused with gasoline started the fire. Suppression action was a cooperative effort among federal and State agencies, fire departments and districts, elected representatives, and NGO's. The fire threatened a significant number of structures and improvements in Bisbee. At one point, 30 homes located in Brewery Gulch (50 people) were evacuated. As the fire continued to burn, approximately 130 structures north of Tombstone Canyon Road were threatened. A Structure Protection Group was utilized to protect these homes and buildings. Lathe Evans of the B.L.M. served as the Incident Commander Type 3 (ICT3) Trainee. Rick Evans of the Huachuca City Fire Department served as the ICT3. It took the



efforts of 6 State Forestry Hand Crews, a Fire District short crew, 10 fire engines, 5 water tenders, 2 helicopters, 3 S.E.A.T.S., and various Federal, State, and Fire Department and District overhead to eventually contain and control the fire. The fire burned 750 acres of grass

and brush. 10-15 foot flames lengths were observed when the fire spread across steep terrain and through thick brush and grass. The Red Cross, Cochise County Emergency Services, the U.S. Border Patrol, the City of Bisbee, and the Governor's Southern Arizona Office also provided essential support.

Of the 750 acres that burned, 50% was B.L.M. managed land, 40% privately owned, and 10% State Trust Land.

Meadow Fire (nighttime image of the fire on right)

The Meadow Fire started on Valentine's Day and burned over 2,000 acres. The incident was a classic example of a wind driven fire. Suppression resources from Federal and State land management agencies, and fire departments and districts assisted with containment and control. On the first day of the fire, wind driven fire runs and extreme fire behavior were observed. On the second day, the fire was blanketed by 5 inches of snow!



Levee Fire (pictured to the right)

A 57 acre near Yuma on B.L.M. managed land. The Catalina, Yuma, and Fort Grant DOC Fire Crews, along with a number of other resources, responded to the fire.



Other Fires of Significance-

Lochiel Fire- 80 acres of Private Land within the San Raphael Valley

Valentine Fire- B.L.M. Fire in the San Pedro River near Palominas



Back Pack Fire- 19.5 acres of Private Land on the Babocomari Land Grant.

Lonesome Fire- 50 acres inside the St. David Fire District at Highway 80 and the San Pedro River.

Tomb Fire- 278 acre fire off the Davis Road in Cochise County. This fast moving fire "treed" a coyote and bobcat (both animals were killed). Treed coyote appears in the image to the left.

The Loop Fire of 1966

Recommendations Still Relevant Today!

Although the Loop Fire occurred over 41 years ago, the recommendations made by the Investigative Team still have relevancy today. In fact, many of their recommendations are standard practices and procedures for modern wildland fire management. Picture of El Cariso Hotshot Crew in 1966 appears to the right.

A brief summary of the Loop Fire

On November 1st, 1966, in a canyon near the boundary of the Angeles National Forest, California, a flareup on the Loop Fire overran the Forest Service's El Cariso Hotshot Crew, burned to death 10 firefighters and inflicted critical to minor injuries on 12

others. One of these critically injured men died at the Los Angeles County General Hospital on November 6th. Three members of this crew and a Forest Service Division Boss were in the upper part of the disaster canyon and were not injured.



This tragedy occurred on the southeast corner of the Loop Fire in the lower end of a "chimney" canyon. The area in which the men were trapped was about 30 feet wide and 200 feet long. The lead man of the El Cariso Crew, Gordon King, was within 300 feet of the end of the Los Angeles County Fire Department's bulldozer fireline at the time the fire flared up and made its run.

Killed in Action in the Line of Duty:

<i>Kenneth Barnhill, 19</i>	<i>Crewman</i>
<i>Raymond Chee, 23</i>	<i>Crew Boss</i>
<i>John Filgo, 18</i>	<i>Crewman</i>
<i>Joel Hill, 19</i>	<i>Crewman</i>
<i>Daniel Moore, 21</i>	<i>Crewman</i>
<i>James Moreland, 22</i>	<i>Crewman</i>
<i>John Verdugo, 19</i>	<i>Crewman</i>

<i>William Waller, 21</i>	<i>Crewman</i>
<i>Michael White, 20</i>	<i>Crewman</i>
<i>Stephen White, 18</i>	<i>Crewman</i>

Critically or seriously injured in the Line of Duty:

<i>Steven Bowman, 23</i>	<i>Crewman</i>
<i>Patrick Chase, 19</i>	<i>Squad Boss</i>
<i>Robert Chounard, 18</i>	<i>Crewman</i>
<i>Edward Cosgrove, 22</i>	<i>Crew Boss</i>
<i>Frederick Danner, 18</i>	<i>Crewman</i>
<i>Gordon King, 32</i>	<i>Superintendent</i>
<i>Richard Leak, 19</i>	<i>Foreman</i>
<i>Carl Shilcutt, 26</i>	<i>Crewman (died in hospital)</i>
<i>Joseph Smalls, 24</i>	<i>Crewman</i>
<i>Gerald Smith, 19</i>	<i>Crewman</i>
<i>Glen Spady, 22</i>	<i>Crewman</i>

Slightly injured in the Line of Duty:

<i>Warren Burchett, 32</i>	<i>Assistant Superintendent</i>
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Uninjured or out-patient examination and treatment:

<i>John Moore, 23</i>	<i>Foreman</i>
<i>William Parshall, 19</i>	<i>Crewman</i>
<i>Rodney Seewald, 19</i>	<i>Squad Boss</i>
<i>William Westmoreland, 29</i>	<i>Division Boss</i>

Recommendations [made by the Investigative Team]:

1. *The highly localized decisions and actions which resulted in the tragedy points to the need of: (1) a more specific direction on safe practices in similar topography; (2) specific control of helicopter attack; (3) scheduling of more complete inter and intracrew communication; and (4) sector scouts where inter-regional or interforest crews are involved.*
 - a. *Provide a physical checklist for downhill line operations whereby such an operation would be done only when all critical factors are aligned favorably and checked off on the list. This should be more than the standard firefighting orders or 10 rules now in use.*

- Included in this checklist must be the complete factual knowledge that the toe of the fire edge will be held in a safe condition.*
- b. Increase the use of short range lightweight radio units for intradivision operations or intercrew operations as a secondary net.*
 - c. Improve intelligence by helicopter or on-the-ground scouting or both at all critical points in the fire area and particularly where 2 crews are working toward each other.*
- 2. Increase efforts on the development of lightweight flame resistant suits, including face masks and gloves. When satisfactory items have been developed, make their use mandatory by trained men and crews used on interforest and interregion missions.*
 - a. Continue to try and develop more usable fire protective shelters and make them standard equipment for all trained men and crews commonly working in fast fuels.*
 - 3. When 2 crews are working toward one another, radio communication must always be provided between them. This requires special arrangements between crews whose radios are on different frequencies.*
 - 4. Re-examine the fully array of presuppression activities in fast fuel areas and establish the benefits plus or minus of accelerating the fuel break system in relation to safety and its place in the balance of all presuppression activities.*
 - 5. Make crystal clear in firefighter training that a "chimney", "narrow box canyon" or similar topographic feature is a hazard even if devoid of fuel.*

In case you missed the relevancy to the modern wildland firefighter:

Recommendation 1a: Downhill Checklist found on page 8 of the Incident Response Pocket Guide and pages 17-18 of the Fireline Handbook

Recommendation 1b: Programmable portable radios are standard equipment on the fireline. Both simplex and repeater frequencies are used during operations.

Recommendation 1c: Fireline intelligence gathering is achieved through the use of Air Attack, Aerial Reconnaissance, Field Observers, Lookouts, Safety Officers, and Fireline Scouts.



Recommendation 2: Fire Resistant Shirts, Fire Resistant Pants, Leather Gloves, Hardhats, Leather Lace-Up Boots, and Fire Shelters are required Personal

Protective Equipment for modern wildland firefighters. Items similar to the proposed “face masks”, although not required, are available and used by some wildland firefighters.

Recommendation 2a: *Fire Shelters have been a required item since 1977. In fact, a new generation fire shelter has been developed and is slowly but steadily replacing the older style fire shelters.*

Recommendation 3: *Field programmable radios are standard equipment used by wildland firefighters. Often a tactical frequency is established for a Division that enables inter-crew communication.*

Recommendation 4: *The importance of fuels management through prescribed fire, wildland fire use, mechanical and chemical treatments, and livestock grazing is widely recognized and implemented by land management agencies, fire departments and non-government organizations.*

Recommendation 5: *The dangers of the “chimney effect” and fire behavior in “narrow box canyons” is emphasized in introductory (S-190) and intermediate (S-290) level fire behavior courses.*



State Engines 361, 362 and 363

As many of you know, the Tucson District of the Arizona State Forestry Division operates three type 6 engines during the fire season. Funding for the 2008 fire season has been requested. If approved, here is a preview of what these engines will be up to during the season.

State Engine 361

This engine will be stationed in Tucson at the Arizona State Forestry Division Compound located near the ADOC Wilmot Prison. Beyond fire response, the engine personnel will be involved with the maintenance of the Keystone Peak, Diamond Bell, Madera Reserve, and Camino Aurelia fuels projects. The engine will also serve as a training platform for Engine Boss and Firefighter Type I trainees, brand new firefighters, and on occasion, Type 4 Incident Commanders. To assist with training, the engine personnel will participate in tactical decision games (sand table exercises), various firefighting drills and scenario based exercises. Contingent on funding, Engine 361 will start on May 22nd and end on July 12th.



State Engine 362

This Type 6 engine will be stationed in Oracle at the Oracle Fire District's Station #1. Beyond fire response in Oracle and along the Highway 77 corridor, the engine personnel will engage on fuels projects in the Oracle area, make contact with homeowners, map newer subdivisions, and distribute fire prevention literature. Engine 362 will also serve as a training platform for Engine Boss and Firefighter Type I trainees, brand new firefighters and on occasion, Type 4 Incident Commanders. Engine 362 will start on May 27th and end on July 9th.

State Engine 363

This Type 6 engine will be stationed in Huachuca City. Beyond fire response primarily in Cochise County, the engine personnel will be engaged in prevention and mitigation work in the Urban Interface. It is anticipated that E-363 will start during the 3rd or 4th week of May and continue through the first or second week of July.

Fatalities, Entrapments and Serious Accident Summary for 2007

The following data indicate the fatalities, entrapments and burnovers and other serious accidents associated with wildfire, wildland fire use and prescribed fire operations in calendar year 2007. The information was collected by the NWCg Safety & Health Working Team, with confirmation of the fatalities from the National Fire Protection Association (NFPA) and the United States Fire Administration (USFA).

Date	Fire Location Jurisdiction	Activity	Agency/Entity of Personnel Involved	Type of Accident	Number of People	# Shelters Deployed	Fatalities	Injuries
1/25	Witherbee Ranger District Frances Marion NF Huger, SC	Driving Returning from prescribed fire	Federal/FS	Engine collision with vehicle	1	N/A	1	One civilian fatality also
3/25	Hewitt Road/NC10 Catawba Fire Department Catawba, NC	Driving Returning to station from fire	Volunteer	Vehicle collision with vehicle	1	N/A		Paralyzed from neck down
4/27	Pack Creek Prescribed Fire Manti-LaSal NF Moab, UT	Terra torch preparation on prescribed fire	Federal/NPS	Finger in contact with moving part	1	N/A		Amputation of right ring finger
4/28	Gem County Fire Protection District #2 Sweet, ID	WCT Complications experienced following a Pack Test	Volunteer	Heart attack	1	N/A	1	
4/28	Race Track Fire Georgia Forestry Comm. Waynesville, GA	Firefighting Tractor/Plow operations	State/GA	Burnover	1	1		2 nd degree burns
5/23	Stag Road Fire NC Division of Forest Resources Pender County, NC	Firefighting Tractor/Plow operations	State/NC	Burnover	1	0		Minor burns to neck, ear, and eyebrow

Date	Fire Location Jurisdiction	Activity	Agency/Entity of Personnel Involved	Type of Accident	Number of People	# Shelters Deployed	Fatalities	Injuries
5/24	Interstate 40 Knoxville, TN	Driving Returning from training	Federal/ FS	Vehicle rollover	2	N/A	1	Minor injuries on other occupant
5/25	Bolli Fire Forest Road 35N18 Shasta - Trinity NF CA	Driving	Contractor/FS	Water tender rollover	1	N/A		Head lacerations, bruises, possible fractures
6/23	Road 26 and Ave 21 Madera County Chowchilla, CA	Driving Responding to fire	County	Water tender collision with vehicle	2	N/A		Injuries, transported to hospitals
6/25	Woodland Fire (WFO) Gila NF NM	Smoke jumping	Federal/FS	Parachute canopies collided	2	N/A		One with minor injuries; one with multiple injuries transported to trauma center
6/26	Angora Fire Tahoe Management Unit So. Lake Tahoe, CA	Firefighting Engine operations	Federal/FS	Entrapment	2	2		No injuries
6/27	Madison Arm Fire Gallatin NF MT	Firefighting	Federal/FS & Contractor	Entrapment	8 FS 1 Contractor	0		No injuries
6/27	Moon Lake Fire Ashley NF Mountain Home, UT	Driving Returning from fire	Federal/FS	Engine rollover	2	N/A		Major injuries, transported to hospital
7/7	Inyo Fire Complex CAL Fire Independence, CA	Firefighting Suppression	State/CA	Entrapment	9	9		Minor injuries, smoke inhalation
7/7	West Basin Fire BLM Elko District Jackpot, NV	Firefighting Line scouting	State/NV	Entrapment	1	0		Burns to face, arm, and leg
7/8	Alabaugh Fire Black Hills NF Hot Spring, SD	Firefighting Burnout operations	Federal/FS	Entrapment	2	1		1 st and 2 nd degree burns to hands and face; no airway impact

Date	Fire Location Jurisdiction	Activity	Agency/Entity of Personnel Involved	Type of Accident	Number of People	# Shelters Deployed	Fatalities	Injuries
7/9	Schultz Fire FR 420, Coconino NF Flagstaff, AZ	Driving	Contractor	Water tender rollover	2	N/A		No injuries
7/11	Chain of Craters BLM Albuquerque District Grants, NM	Prescribed fire operations	Federal/BLM	UTV Fire Polaris Ranger, 6X6	2	N/A		No injuries
7/18	Zaca Fire Figueroa Mountain Road Los Padres NF CA	Driving Support to ICP	Contractor	Sump truck left roadway	1	N/A		Multi-injuries, fracture to leg
7/18	Wood Creek Fire Boise NF ID	Firefighting Conducting burnout operations	Federal/BLM	ATV rollover	1	N/A		Injury, left pelvic area
7/23	Elk Fire Klamath NF CA	Aviation Logistical support	Contractor	Bell 205 helicopter crash	1	N/A	1	
7/24	Trapper Ridge (WFU) Boise NF ID	Firefighting Line construction	Federal/BLM	Struck by hazard tree(s)	2	N/A		Treated for minor injuries; released, returned to light duty
7/27	Interstate 40 NC Division of Forest Resources Morrisville, NC	Driving Returning from training	State/NC	Pickup collision with vehicle	1	N/A	1	
7/28	Ahorn Fire Lewis and Clark NF MT	Firefighting Lookout position	Federal/FS	Entrapment	1	1		No injuries
7/30	Highway 41/ Road 417 CAL Fire Coarsegold, CA	Driving Responding to fire	State/CA	Engine collision with vehicle	3	N/A		No injuries
7/31	Middle Fork Complex Forest Road 555 Boise NF ID	Driving Returning to ICP	Contractor	Pickup rollover	5	N/A		4 treated at hospital and released; 1 remained hospitalized

Date	Fire Location Jurisdiction	Activity	Agency/Entity of Personnel Involved	Type of Accident	Number of People	# Shelters Deployed	Fatalities	Injuries
8/7	Poe Cabin Fire ID Dept. of Lands White Bird, ID	Firefighting Burnout operations	Federal/FS	Entrapment	3	0		3 individuals received radiant burns to their face, neck and arms
8/12	Cascade Fire Complex Warm Lake Road Boise NF Cascade, ID	Driving Relocating dumpster	Contractor	Garbage truck rollover	2	N/A		Minor injuries
8/12	Cascade Fire Complex Warm Lake Road Boise NF Cascade, ID	Hiking to ICP following truck accident	Contractor	Entrapment	2	0		No injuries
8/14	Rombo Mountain Fire Bitterroot NF MT	Felling a green tree, hit a snag which hit the sawyer	Federal/FS	Struck by hazard tree	1	N/A		Minor injuries
8/20	Little Goose Fire Bighorn NF WY	Firefighting	Federal/FS	Entrapment	2	0		Entrapped in vehicle, no injuries
8/23	Italian Incident CAL Fire Tuolumne-Calaveras Unit CA	Driving En route to fire	State/CA	Utility truck collision with vehicle	1	N/A		Minor injuries
8/24	TN Div. of Forestry Nashville, TN	Firefighting Flagging control line	State	Heart attack	1	N/A	1	
9/12	Pine Fire Cleveland NF Pine Valley, CA	Firefighting Dozer operations	State/CA	Entrapment	1	0		1 st , 2 nd and 3 rd degree burns to hands and face
9/12	Woodview Fire VA Dept. of Forestry Shockoe, VA	Firefighting Tractor/Plow operations	State/VA/ Volunteer	Entrapment	2 State 1 Volunteer	0		Minor injuries
9/19	Lake Isabella Fire BLM Bakersfield District Bakersfield, CA	Driving Responding to fire	Federal/BLM	Engine rollover	2	N/A		Minor injuries

Date	Fire Location Jurisdiction	Activity	Agency/Entity of Personnel Involved	Type of Accident	Number of People	# Shelters Deployed	Fatalities	Injuries
9/24	Sedgwick County Fire District #1 Wichita, KS	Firefighting Suppression	County/Volunteer	Electrocution	1	N/A	1	
10/1	Hwy 18, Big Bear Dam area San Bernardino NF San Bernardino, CA	Driving En route to fire	Federal/FS	Crew carrier rollover	8	N/A		Minor injuries, shoulder injuries
10/8	Colorado Incident CAL Fire, Monterey Unit San Jose, CA	Firefighting Dozer operations	State/CA	Dozer rollover	1	N/A	1	
10/21	Harris Fire CAL Fire, San Diego County CA	Firefighting Engine operations	State/CA	Entrapment	4	0		Minor and serious burn injuries
10/22	Santiago Fire Orange County CA	Firefighting	County	Entrapment	12	12		No injuries
10/24	Avenue 50 Riverside County Coachella, CA	Driving	County	Water tender collision with vehicle	2	N/A		Minor injuries
11/12	Chi Chi Fire Gallatin NF MT	Firefighting Suppression	County	Burnover, engine and firefighter	2	0		Smoke inhalation Injuries
11/24	Corral Fire Los Angeles County CA	Firefighting Mop-up operation	State/CA	Burns	1	N/A		Facial burns treated at Grossman Burn Center
11/24	Haverford Fire San Diego - MVU Unit Ramona, CA	Firefighting Suppression	State/CA	Retardant drop struck engine and firefighters	4	N/A		Minor injuries, lacerations
11/27	Florida Volusia Fire Institute Daytona Beach, FL	Training Chain saw and tree falling course	County	Pine tree fell on firefighter	1	N/A	1	

For calendar year 2007 there were 9 fatalities. This is a substantial decrease from the 24 fatalities that occurred in 2006. The 2007 fatalities are broken out by category below:

Driving – 3: Three fatalities occurred when the firefighters were returning from a prescribed fire (1) and training (2).

Entrapments/Burnovers – 0: No fatalities occurred from firefighters being entrapped/burned over.

Heart Attacks – 2: One fatality occurred following the Work Capacity Test (pack test); one fatality firefighting.

Hazard Tree/Snag – 1: One fatality occurred when a pine tree fell on a firefighter during chain saw training.

Aviation – 1: One fatality occurred when helicopter was performing logistical support on a fire.

Other – 2: One fatality occurred when a dozer rolled over while constructing fire line; one fatality occurred by electrocution.

Some other national reports may report additional wildland firefighter fatalities in 2007. The criteria for the NWCg-SHWT Safety Gram doesn't take into account those fatalities that occurred when firefighter are "responding to station" for a fire.

The NWCg Safety & Health Working Team would like to request any Investigation Reports from agencies that experienced the above or other fatalities, entrapments, and major accidents in 2007 or previous years. Safety Gram reporting criteria can be found at http://www.nwcg.gov/teams/shwt/saftegram_criteria.pdf.

More Images of the Moon Canyon Fire





*Photographs of the Southern Fire near Avondale
(images courtesy of Todd Foster, Tempe Fire Department)*



